

Forestry Canada - Maritimes Region

TECHNICAL NOTE

PLANTING AND TENDING RECOMMENDATIONS FOR SUGAR MAPLE (*Acer saccharum* Marsh.)

WHERE TO PLANT: For best growth, plant in deep, fertile, moist, but well-drained loams or silt loams. Old fields may be suitable provided site preparation is carefully carried out.

WHERE NOT TO PLANT: In excessively dry, wet, or shallow soils. In uncultivated woodland cutovers.

SITE PREPARATION: In late August, before spring planting, spray 4.7 L/ha (0.5 gal/ac) of Vision (Roundup) over the total plantation area, or strips and spots where existing species are acceptable. Two weeks after spraying, plow and disk or rototill. Lower application rates may be effective on lesser competition, and thus less expensive.

SPECIES MIXTURES: On intensively managed, highly productive sites, it is best to plant only the most valuable species for quality timber. The plantation is comparable to a fruit orchard. On other sites a mixture of species may maximize soil productivity and meet a range of management objectives.

Sugar maple can be grown with other hardwoods like white ash, red oak, white and yellow birch, and red maple, but should not be grown in mixture with conifers, which provide habitat for rabbits. Even a few rabbits can persistently gnaw on bark and cut leading shoots, preventing most hardwoods from producing quality stems.

SPACING: There is no ideal spacing for planting all species on all sites. Spacing is therefore determined mostly by a compromise involving the space requirement of the species' crown, the owner's objectives and the cost of plantation establishment and tending. Trees grown at wide spacings generally grow faster in diameter, with heavier branching, than trees at closer spacing, which have better form. But spacing has little effect on height growth.

A spacing of 3 m (10 ft) between rows and 1.5 m (5 ft) within rows is recommended. This permits 2,200 trees/ha (870/ac) and allows access by a medium-sized tractor between rows for mechanical or chemical weed control. It promotes early canopy closure to shade out competing vegetation, and allows for some losses or culls.

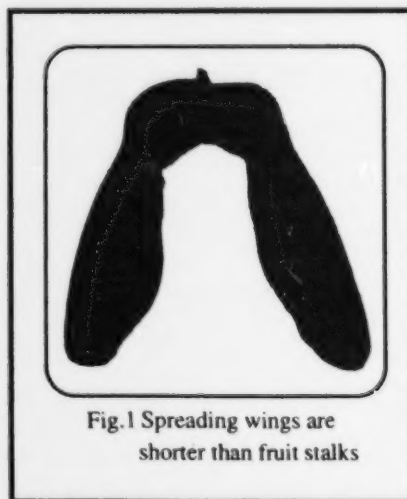


Fig.1 Spreading wings are shorter than fruit stalks

NURSERIES ☐

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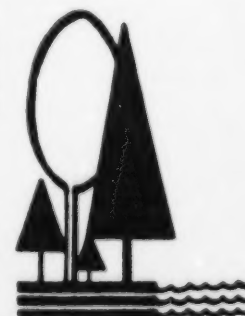
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PLANTING STOCK: Two-year-old seedlings preferably potted, or greenhouse +1 year large container stock. Fall sowing of seed in the nursery is preferable to stratification. Containers may be seeded and cold stored under plastic until March.

TIME OF PLANTING: In spring, as early as site conditions permit, and before flushing begins. After flushing, potted and container stock can be held until mid-June or mid-August, but rainfall or watering are crucial after planting.

PLANTING METHOD: Pit (hole) planting with a spade.

WEED CONTROL AFTER PLANTING: Shortly after planting, spray 5.6 kg/ha (5 lb/ac of Princep Nine-T (Simazine) over the area, strips or spots prepared for planting. In October of the first and second year, or April

of the second and third year, spray 6.7 kg/ha (6 lb/ac) of Princep Nine-T. Where necessary continue spraying after the third year until the trees have outgrown the weed competition. Mechanical weed control by disking and mowing between the rows may be beneficial where chemical control is unacceptable, but is usually ineffective, often damaging tree root systems and encouraging sod formation.

RODENT CONTROL: Mice and rabbit problems may be controlled using poison grain bait stations and plastic tree shelter tubes around individual trees.

PRUNING: During the first three years, prune forked leaders and strong lateral branches to improve stem form. Thereafter, remove all the lowest branches every three to five years in September. Always leave a crown at least half the height of the tree.

J.C. Lees,
April 9, 1990

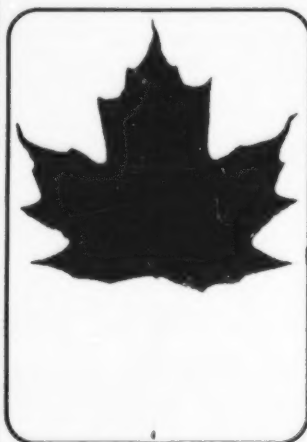


Fig. 2 Lobes have only a few wavy teeth

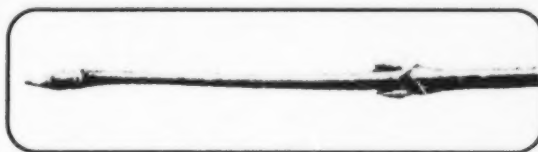


Fig. 3 Twig is shiny and hairless



Fig. 4 Bark is firm, ridges curl outward along one side

Adapted with appreciation from "A guide to hardwood planting on abandoned farmland in southern Ontario" by F.W. von Althen, Forestry Canada - Ontario Region.

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